



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

October 29, 2014

WELL WORK PERMIT

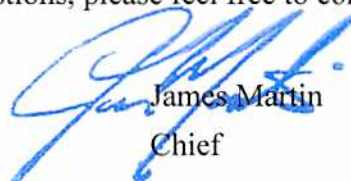
Rework-Secondary Recovery

This permit, API Well Number: 47-3303964, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: J. T. WILLIAMS 12
Farm Name: FLETCHER, FREDERICK, ETAL
API Well Number: 47-3303964
Permit Type: Rework-Secondary Recovery
Date Issued: 10/29/2014

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

24) APPLICANT'S OPERATING RIGHTS were acquired from John T Williams, et ux
by deed _____ / lease X / other contract _____ / dated 02/17/1898 of record in the
Harrison County Clerk's office in Lease Book 105 Page 90

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: FLETCHER, FREDERICK ETAL Operator Well No.: J.T.WILLIAMS#12

LOCATION: Elevation: 1,454.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 13050 Feet South of 39 Deg. 20Min. Sec.
Longitude 2250 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT

Permit Issued: 09/01/93

Well work Commenced: 10/27/93

Well work Completed: 7/1/94

Verbal Plugging

Permission granted on:

Rotary ☒ Cable _____ Rig

Total Depth (feet) 3134'

Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N

Coal Depths (ft): 605'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			To Surface
8-5/8	701'	701'	255 Sks.
4-1/2	3083'	3083'	425 Sks.

OPEN FLOW DATA (Water Injection Well)

Producing formation Fifth Sand Pay zone depth (ft) 2962'-2978'

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Received
Office of Oil & Gas

For: PENNZOIL PRODUCTS COMPANY

By: [Signature] OCT 06 2014
Date: 7/8/94

Treatment

Perforated: Fifth Sand with 12 holes 2970'-2973'
Treated with 300 gal. 15% HCl 257 bbl. gelled water
and 5000# 20/40 sand

Well Log

Sand & Shale	0' - 605'
Coal	605' - 612'
Sand & Shale	612' - 1393'
Sand	1393' - 1430'
Shale	1430' - 1630'
Sand	1630' - 1670'
Shale	1670' - 1934'
Big Lime	1934' - 1950'
Shale	1950' - 2043'
Big Injun	2043' - 2120'
Shale	2120' - 2620'
Sand & Shale	2620' - 2962'
Fifth Sand	2962' - 2978'

T.D.

3134'



1) Date: September 19, 2014

2) Operator's Well No. J. T. Williams 12

3) API Well No.: 47 - 033 -
State County Permit

4) UIC Permit No. UIC2R03301AP

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OF WASTE DISPOSAL WELL WORK PERMIT APPLICATION
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS,

5) Surface Owner(S) To Be Served		7) (a) Coal Operator	
(a) Name	Frederick Fletcher ✓	Name	_____
Address	5777 SR 21	Address	_____
	Naples, NY 14512		_____
(b) Name	_____	7) (b) Coal Owner(S) With Declaration Of Record	
Address	_____	Name	_____
	_____	Address	_____
	_____		_____
(c) Name	_____	Name	_____
Address	_____	Address	_____
	_____		_____
6) Inspector	_____	7) (c) Coal Lessee with Declaration Of Record	
Address	_____	Name	Wolf Run Mining
	_____	Address	2708 Cranberry Square ✓
Telephone	_____		Morgantown, WV 26505
	_____		_____

TO THE PERSONS NAMED ABOVE: You should have received this form and the following documents

- (1) The Application For A Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work;
- (2) The plat (surveyor's map) showing the well location on Form WW-6; and
- (3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is _____ 20 ____ 14 ____.

THE REASON YOU HAVE RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION [(FORM WW-3(B)) DESIGNATED TO YOU. HOWEVER YOU ARE NOT REQUIRED TO TAKE ACTION AT ALL.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to a well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of the mailing or delivery to the Chief.

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator HG Energy, LLC
Address 5260 Dupont Road
Parkersburg, WV 26101
By: Diane White
Its: OCT 06 2017
Signature: Diane White

3303964SW

7012 3460 0002 6850 6316

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 1.61
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.61



Sent To Wolf Run Mining
 Street, Apt. No.,
 or PO Box No. 2708 Cranberry Sq
 City, State, ZIP+4 Morgantown WV 26505

PS Form 3800, August 2006

See Reverse for Instructions

7012 3460 0002 6850 6309

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 1.61
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.61



Sent To Frederick Fletcher
 Street, Apt. No.,
 or PO Box No. 5777 SR 21
 City, State, ZIP+4 Naples NY 14512

PS Form 3800, August 2006

See Reverse for Instructions

Received
 Office of Oil & Gas

OCT 06 2014

3303964SW

WW-9
Rev. 5/10

Page _____ of _____
API Number 47 - 033 - 3956
Operator's Well No. JT Williams 12

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name HG Energy, LLC OP Code 494497948

Watershed Tenmile Creek Quadrangle Wolf Summit 7.5'

Elevation 1454' County Harrison District Tenmile

Description of anticipated Pit Waste: Fluids encountered while stimulating subject well

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes _____ No X

Will a synthetic liner be used in the pit? Yes If so, what mil.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- X Land Application
____ Underground Injection (UIC Permit Number _____)
____ Reuse (at API Number _____)
____ Off Site Disposal (Supply form WW-9 for disposal location)
____ Other (Explain _____)

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. NA

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used? Water, soap, KCl

Will closed loop system be used? No

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in pit

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust Native soil, cement, lime

-Landfill or offsite name/permit number? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Diane White

Company Official (Typed Name) Diane White

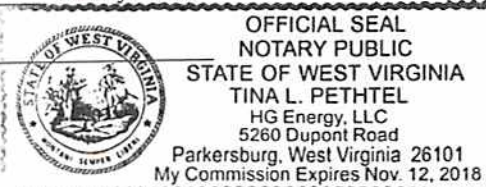
Company Official Title Agent

Subscribed and sworn before me this 19 day of September

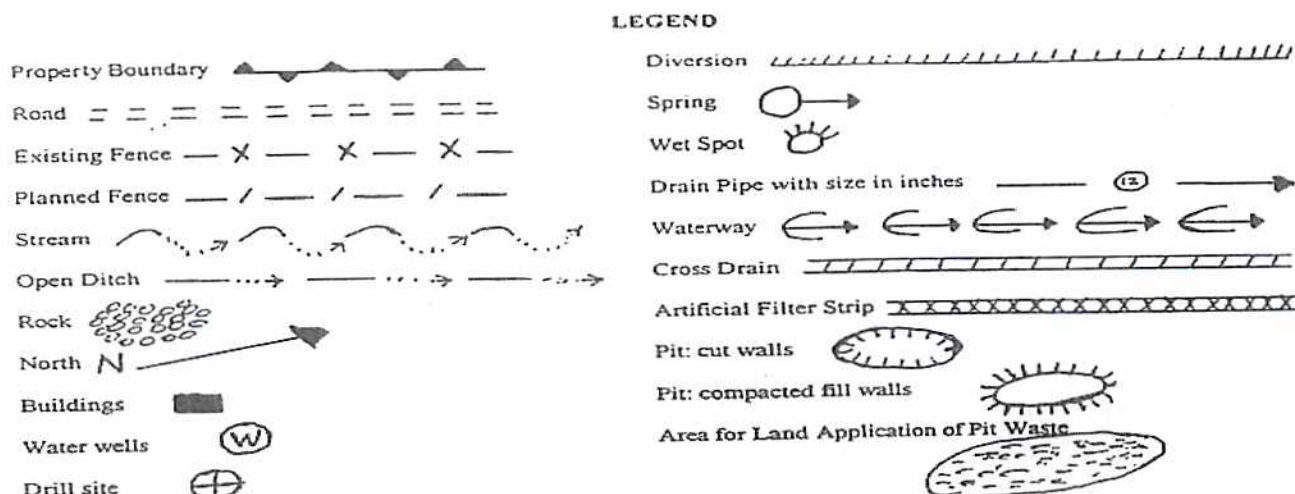
Received
Office of Oil & Gas
OCT 06 2014

Notary Public

My commission expires Nov. 12, 2018



Form WW-9

Operator's Well No. J. T. Williams 15Proposed Revegetation Treatment: Acres Disturbed 0.7 acres Prevegetation pH _____Lime 2 Tons/acre or to correct to pH 6.5Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)Mulch Straw 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre
Tall Fescue		40
Ladino Clover		5

Seed Type	Area II	lbs/acre
Tall Fescue		40
Ladino Clover		5

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Sam D. Warrick

Comments: _____

Received
Office of Oil & GasTitle: Oil & Gas InspectorDate: 9/29/2014

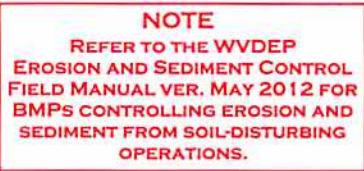
Field Reviewed?

() Yes

(X) No

330396454

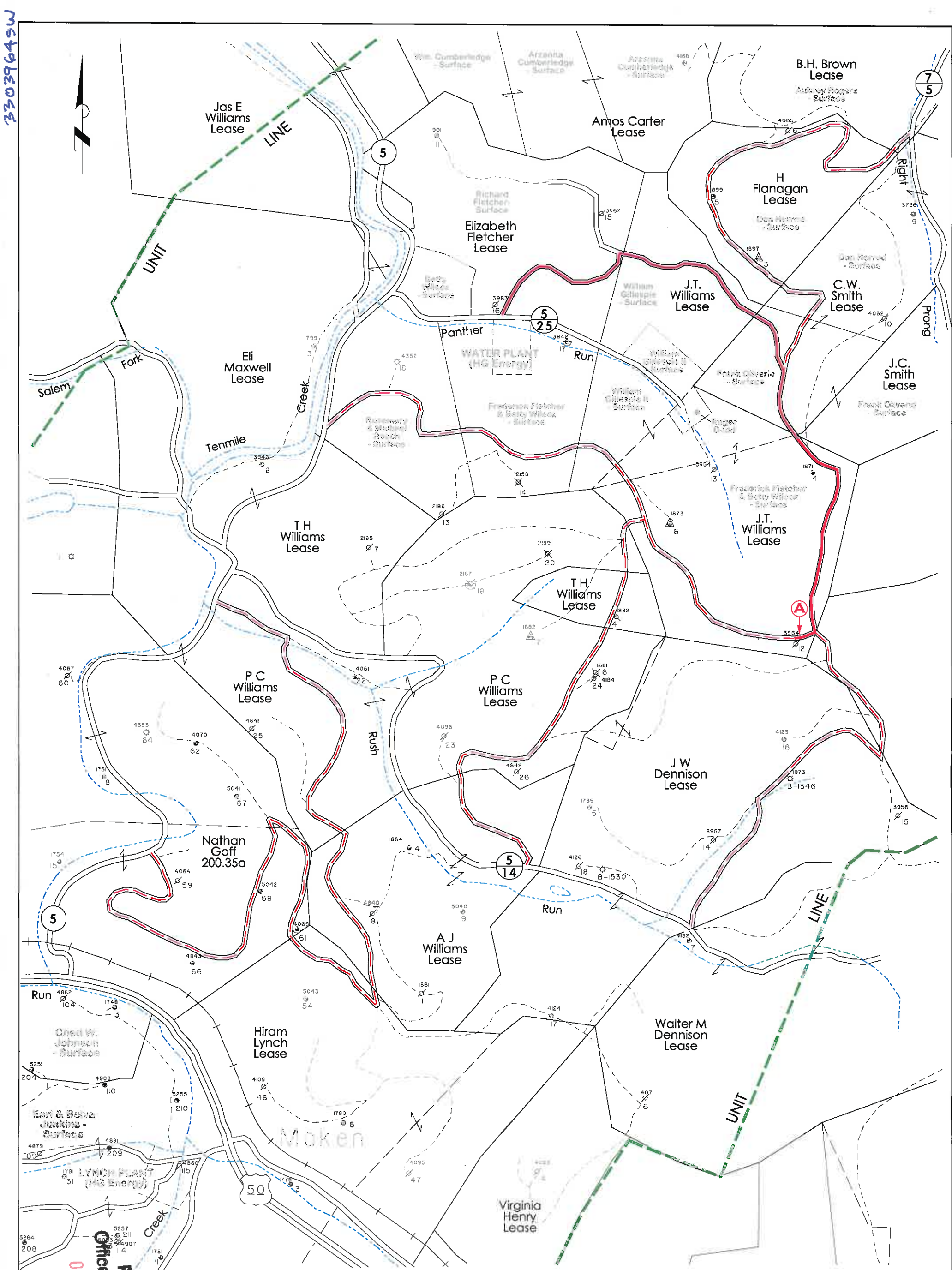
See Page 2 for road
detail to Co. Rd. $\frac{5}{25}$



WELL LOCATION WAS BUILT AND RECLAIMED UNDER DRILLING PERMIT NO.47-033-3964. ONLY MINIMAL EARTHWORK WILL BE REQUIRED FOR PROPOSED WELL WORK. ALL DISTURBED AREAS WILL BE RE-VEGETATED AS PER THE SEEDING PLAN ON FORM WW-9. A SMALL WORKOVER PIT WILL BE CONSTRUCTED TO CONTAIN ANY FLUIDS RECOVERED DURING PROPOSED WELL WORK.

- Requested permit is for re-frac of existing well.
- Location and access roads from Co. Rd. 5/25 to the well are existing. Structures shown will be maintained.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Sediment barriers and drainage structures will be maintained.
- All road grades <5% except as noted.

Note: Drawing not to Scale




WOLF SUMMIT WATERFLOOD

Harrison County, W.Va.

**RECLAMATION PLAN
SHOWING EXISTING ROAD
SYSTEM USED FOR ACCESS
HG ENERGY WELLS.**

J.T. Williams No.12

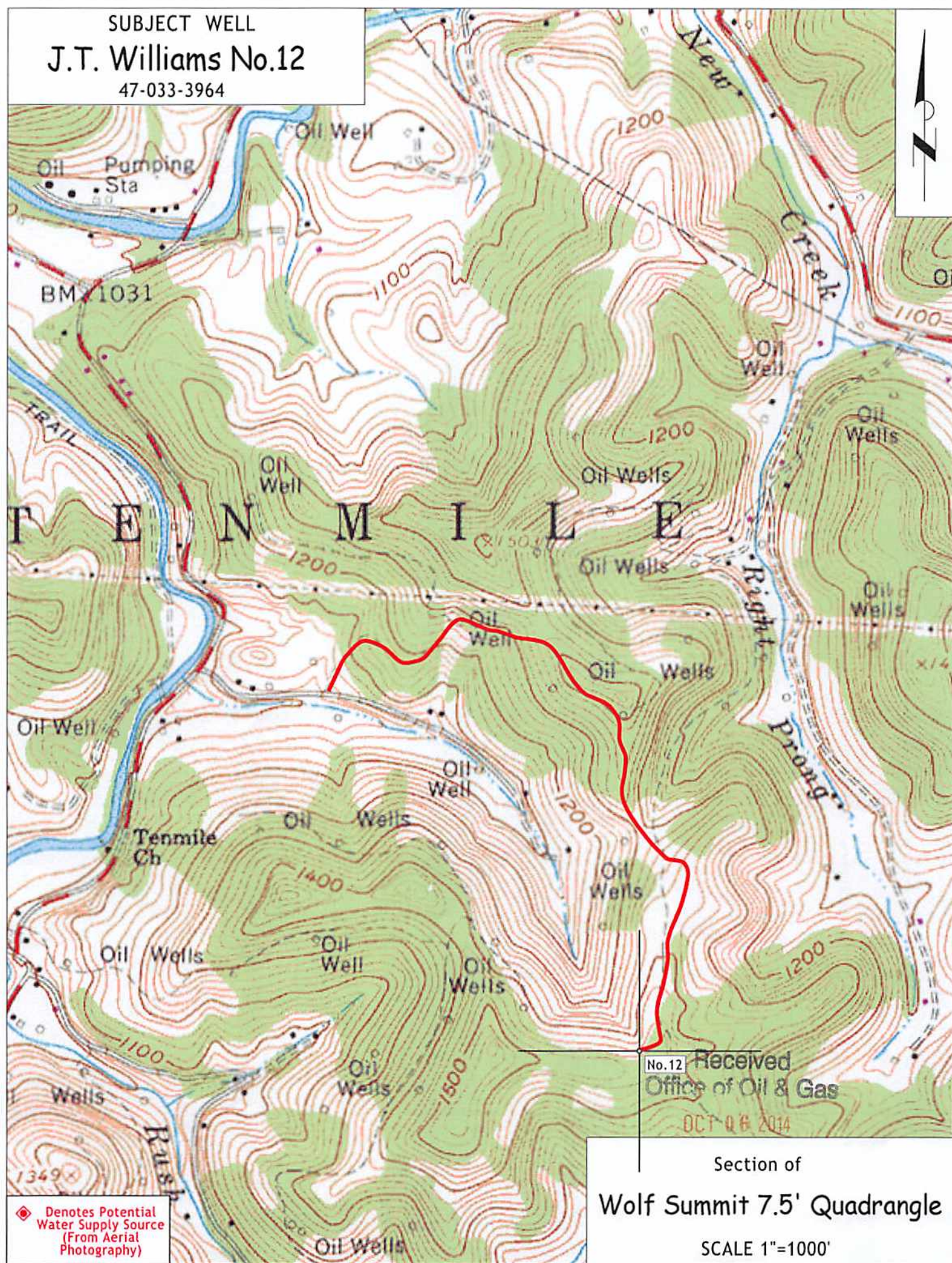
NOTES

1. REFER TO THE WVDEP EROSION AND SEDIMENTATION CONTROL MANUAL (VER. MAY 20, 2013) FOR BMP'S CONTROLLING EROSION AND SEDIMENTATION FROM ALL SOIL-DISTURBING OPERATIONS.
2. SEE PAGE ONE OF RECLAMATION PLAN FOR DETAILS OF NEW ROAD CONSTRUCTION AND/OR ROAD UPGRADES FROM POINT .
3. EXISTING WATERFLOOD ACCESS ROADS WILL BE MAINTAINED IN PRESENT CONDITION. THESE ROADS WERE CONSTRUCTED UNDER CONDITIONS SET FORTH IN VARIOUS DRILLING PERMITS ISSUED BY WVDEP-OOG FROM 2003 - 2014 (As Shown). SEE PERMITS ON FILE FOR MORE DETAIL.

LEGEND

-
- EXISTING WATERFLOOD ROADS TO BE USED.**
- OTHER EXISTING MAIN WATERFLOOD ROADS (POSSIBLE ACCESS).**
- EXISTING LEASE OR FARM ROADS TO BE UPGRADED.**
- NEW ROADS TO BE CONSTRUCTED.**
- LOCATION FOR PROPOSED WELLS**
- POTENTIAL WATER SUPPLY SOURCE TO BE SAMPLED**

SUBJECT WELL
J.T. Williams No.12
47-033-3964



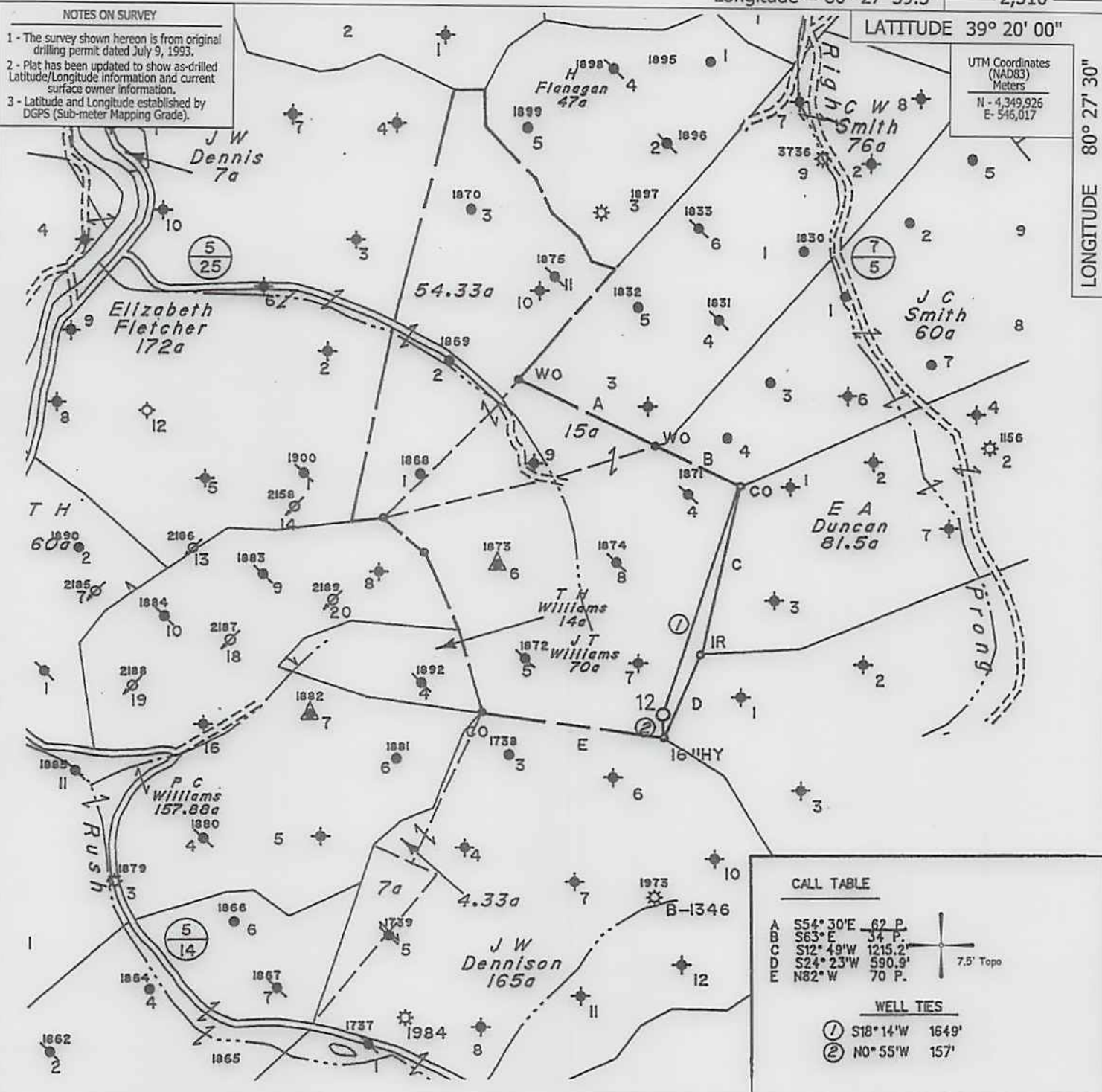
$-2,310'$

LONGITUDE 80° 27' 30"

13,090'

atitude = 39° 17' 50.7"

- 1 - The survey shown hereon is from original drilling permit dated July 9, 1993.
- 2 - Plat has been updated to show as-drilled Latitude/Longitude information and current surface owner information.
- 3 - Latitude and Longitude established by DGPS (Sub-meter Mapping Grade).



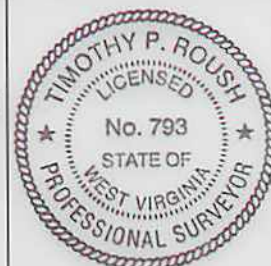
- DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. _____
MAP NO. N S E W _____
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY _____
PROVEN SOURCE OF
ELEVATION WVDEP Record Elevation

I THE UNDERSIGNED, HEREBY CERTIFY THAT
THIS PLAT IS CORRECT TO THE BEST OF MY KNOW-
LEDGE AND BELIEF AND SHOWS ALL THE INFORMATION
REQUIRED BY LAW AND THE REGULATIONS ISSUED
AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED)

TIMOTHY P. ROUSH PS 793



WEST VIRGINIA
Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, West Virginia 25301



DATE September 17, 2014

FARM J.T. Williams No.12

API WELL NO.

47-033 -03964

WELL TYPE: OIL _____ GAS _____ LIQUID INJECTION X WASTE DISPOSAL _____
(IF "GAS") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW X

LOCATION: ELEVATION 1,454' WATERSHED Tenmile Creek

DISTRICT Tenmile COUNTY Harrison

QUADRANGLE Wolf Summit 7.5'

SURFACE OWNER Frederick Fletcher & Betty Wilcox ACREAGE 103.99 Ac.

OIL & GAS ROYALTY OWNER	HG Energy, LLC., et al	LEASE ACREAGE	150 Ac.
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LEASE NO. 32706-50

PROPOSED WORK: DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR
STIMULATE ☒ PLUG OFF OLD FORMATION ☐ PERFORATE NEW
FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Frac 5th Sand

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION 5th Sand ESTIMATED DEPTH 3,134'

WELL OPERATOR HG Energy LLC.
ADDRESS 5260 DuPont Road
Parkersburg, WV 26101

DESIGNATED AGENT Diane White
ADDRESS 5260 DuPont Road
Parkersburg, WV 26101

FORM IV-6



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

CK 2776
65000
3303964SW

September 19, 2014

Mr. Jeff McLaughlin
Division of Oil & Gas
601 57th Street
Charleston, West Virginia 25304

RE: J. T. Williams No. 12 (47-033-3964)
Tenmile District, Harrison County
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, Mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to stimulate the above-captioned liquid injection well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

Diane White

Diane C. White

Enclosures

Received
Office of Oil & Gas
OCT 06 2014

cc: Frederick Fletcher – Certified
Wolf Run Mining - Certified
Sam Ward - Inspector